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Method for inductively

heating a substrate and a

coating on a substrate

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#### CLAIMS:

- 1. Method for heating a substrate and a coating on said substrate comprising applying on the coating a susceptor element, wherein said susceptor and substrate are inductively heatable, and inductively energizing the element and substrate to cause said substrate and coating to be heated.
- 2. Method as claimed in claim 1 wherein a heat insulation material is provided on an outer side of the susceptor element.

- 3. Method as claimed in claim 1 wherein a inner heat insulation material is interposed between the susceptor element and the coating.
- 4. Method as claimed in claim 5 wherein the inner insulation material includes a release layer.
- 5. Method as claimed in claim 1 wherein the susceptor is perforate or foraminous.
- 6. Method as claimed in claim 1 wherein the susceptor element provides an open circuit.
- 7. Method as claimed in claim 1 wherein the susceptor element provides a closed circuit.
- 8. Method of repairing an opening in a coating on a substrate comprising heating said coating employing a heating method as claimed in any of claim 1 to heat the coating before applying a patch.
- 9. Method as claimed in claim 8 comprising heating said coating to at least an activation temperature for said patch or for a coating on said patch.
- 10. Method as claimed in claim 8 wherein the substrate is a tubular article and the susceptor element is curved to conform to a surface curvature of the article.
- 11. Method of applying a coating or covering to a weld joint between tubular

substrates each having a mainline coating, comprising heating said substrates and coatings employing a heating method as claimed in claim 1 before applying said coating or covering.

- 12. Method as claimed in claim 11 wherein said covering comprises a heat shrink sleeve and said heating method comprises heating each mainline coating adjacent the weld joint, and wherein each susceptor element comprises a band form element applied around the girth of the mainline coating of the tubular substrate adjacent the weld joint.
- 13. Method as claimed in claim 12 including heating each coating and substrate adjacent the weld joint to at least an activation temperature for the sleeve or for a coating on the sleeve.
- 14. Method as claimed in claim 1 wherein the coating comprises polyolefin.
- 15. Method as claimed in claim 14 wherein the polyolefin is polypropylene.

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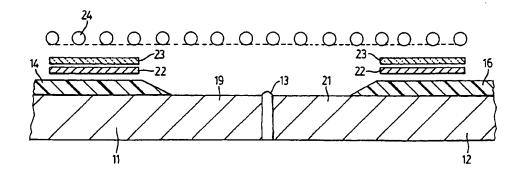
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(54) Title: METHOD FOR INDUCTIVELY HEATING A SUBSTRATE AND A COATING ON SAID SUBSTRATE



(57) Abstract: A method of heating a substrate (11, 12) and a coating (14, 16) on the substrate (11, 12). A susceptor element (22) is applied on the coating (14, 16) and the element (22) and the substrate (11, 12) are inductively energized to cause the substrate (11, 12) and the coating (14, 16) to be heated.

### INTERNATIONAL SEARCH REPORT

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A. CLASSIFICATION OF SUBJECT MATTER IPC 7 B29C35/08 B29C63/42 //F16L58/18,F16L58/10,B29K105:02, B29L23:00			
According to International Patent Classification (IPC) or to both national classification and IPC			
B. FIELDS SEARCHED			
Minimum documentation searched (classification system followed by classification symbols)  IPC 7 F16L B29C B29B			
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C. DOCUMENTS CONSIDERED TO BE RELEVANT			
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Х	PATENT ABSTRACTS OF JAPAN vol. 016, no. 153 (M-1235), 15 April 1992 (1992-04-15) -& JP 04 007124 A (DAI ICHI HIGH	I FREQUENCY	1,6,7, 10,14,15
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Α	abstract		2-5,8,9, 11-13
A	EP 0 222 643 A (HUTCHINSON) 20 May 1987 (1987-05-20) claims 1,3,6; figure 3		1-15
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